IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the patent application of:	)	
	)	
William R. Camerer III et al.	)	
	)	
Title: Corn Plant Evaluation	)	Art Unit 1743
	)	
Serial No. 09/934,232	)	Examiner: Yelena G. Gakh
	)	
Filed August 21, 2001	)	

APPEAL BRIEF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

This is an appeal from the Final Rejection dated January 12, 2004.

REAL PARTY IN INTEREST

The Appellants are employees or consultants of Doebler's Hybrids, Inc. and have assigned their rights in the invention to Doebler's Hybrids, Inc.

RELATED APPEALS AND INTERFERENCES

Neither the Appellants nor their legal representative are aware of any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1 to 5 are rejected and are on appeal.

STATUS OF AMENDMENTS

No amendment has been filed subsequent to the Final Rejection.

SUMMARY OF THE INVENTION

The Appellants' invention is a method of predicting the compositional characteristics of a corn plant population. The method is especially useful in evaluating a population of corn plants for use as silage. Page 5, lines 1 to 4. Silage is produced by harvesting the entire corn plant (ears, husk, cob, leaves, stalk, etc.) and then allowing a natural fermentative process to occur. The fermentative process produces a silage mass that is resistant to spoilage and can be fed to ruminant livestock such as cattle over a period several months after harvest. Page 2, lines 22 to 32.

The Appellants' method comprises six steps: (1) selecting the corn plant population; (2) selecting a limited number of representative plants based on visually surveyed characteristics; (3) harvesting the representative plants; (4) grinding the representative plants into a homogeneous mixture; (5) analyzing a sample of the homogeneous mixture in a near infrared spectrometer; and (6) comparing the analysis with existing correlations. Page 5, lines 9 to 17.

ISSUES

Whether claims 1 to 5 are unpatentable under 35 U.S.C. § 103(a) over the Abstract of the G.M. Jones et al. article entitled "Use of Near Infrared Reflectance Spectroscopy in Forage Testing" from Volume 70, No. 5 of the *Journal of Dairy Science*.

GROUPING OF CLAIMS

The rejected claims do not stand or fall together.

ARGUMENT

The Appellant's invention is a six-step method for predicting the compositional characteristics of a corn plant population. The Appellants acknowledge that not all six steps in the method are novel. For example, it is well known that corn samples can be analyzed in a near infrared spectrometer and that the results can be compared to existing

correlations. However, nothing in the Abstract of the Jones et al. article teaches or suggests the Appellants' overall method. Section 103 requires consideration of the claimed invention "as a whole" and prevents evaluation of an invention part by part. See, e.g., *Ruiz v. A.B. Chance Co.*, No. 03-1333 (Fed. Cir. 2004).

More particularly, nothing in the Abstract of the Jones et al. article teaches or suggests a prediction method in which a limited number of plants are selected based on visually surveyed characteristics and these individual plants are separately harvested, ground, and then analyzed. The Abstract contains absolutely no mention of the method used to obtain the samples. The selection method used in the Appellants' method, and the subsequent isolation, achieves a surprising and unexpected improvement in predicting the characteristics of the population.

Although the Abstract is silent, the Appellants believe that prior art methods analyze samples from a mixture of *all* the plants in the population or from individual plants that are picked by *random*. For example, the conventional way of evaluating a corn population for silage is to harvest the entire population, place it into a silo, and then take samples from the silo. The Jones et al. article is believed to be representative of the prior art. As explained at pages 1086 to 1087, all corn silage samples "were submitted by farmers for routine analysis in the Virginia Tech forage testing program." As is typical in the prior art, there is no mention about *how* the samples were obtained. This omission illustrates the failure of the prior art to appreciate the importance the selection process has on the prediction. The Appellants presume that the samples submitted by the farmers were obtained in the conventional way – the farmers harvested and ground large populations of corn plants, placed the silage into silos, and then took samples from the silos.

This conventional way of obtaining samples of corn silage does not provide a good representation of the population and therefore is a poor predictor of the characteristics of the entire population. The Appellants discovered that their method of selecting a limited number of plants based on visually surveyed characteristics and then harvesting, grinding, and sampling these representative plants provides a far better prediction of the characteristics of the entire population.

The Examiner relied upon her opinion of common knowledge in rejecting the claims. For example, the Examiner stated on page 3 of the Final Rejection that "Choosing several representatives from different levels of population in order to obtain an average

statistical result is a standard procedure in any statistical survey, and it would have been obvious for anyone of ordinary skill in the art to apply such approach to analysis of the large population of corn plants." It is well established that the Examiner has the burden of producing specific evidence rather than simply reciting that an invention is obvious based on common knowledge or common sense. See, e.g., *In re Lee*, 277 F.3d 1338, 61 USPQ 2d 1430, (Fed. Cir. 2002).

The Appellants submit that claim 4 is patentable for the additional reason that it recites the use of a bowl grinder. As discussed in detail in the specification, bowl grinders are typically used for grinding meat products. The Appellants discovered the surprising ability of bowl grinders to cut the long, vertical fibers associated with the corn stalks.

The Appellants request the Board of Patent Appeals and Interferences to reverse the Final Rejection of the Examiner and to allow claims 1 to 5.

Respectfully submitted,

Philip L. Bateman

Philip L. Bateman
Attorney For Appellants
Registration No. 30,127
Telephone No. (217) 429-6400

CERTIFICATE OF MAILING

Philip L. Bateman certifies that three copies of this Appeal Brief are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on April _6_, 2004.

Philip L. Bateman

Philip L. Bateman

APPENDIX

1. A method of predicting the compositional characteristics of a corn plant population, the method comprising:

(a) selecting a population of mature corn plants to be evaluated;

(b) selecting a limited number of representative plants from the population based on visually surveyed characteristics;

(c) harvesting the representative plants;

(d) grinding the representative plants into a homogeneous mixture;

(e) analyzing a sample of the homogeneous mixture in a near infrared spectrometer; and

(f) comparing the analysis with an existing correlation between near infrared analyses and wet-chemistry tested nutritional compositional characteristics.

2. The method of claim 1 wherein at least three representative plants from the population are selected.

3. The method of claim 1 wherein the representative plants are harvested at physical maturity.

4. The method of claim 1 wherein the representative plants are ground in a bowl grinder.

5. The method of claim 1 wherein the sample is analyzed by scanning at a plurality of locations.